

## College of Information Technology

### Bachelor of Science in Information Technology – Major in Digital Game Design and Development



COURSE NO.	UNIVERSITY REQUIREMENTS (30 CREDIT HOURS)	PREREQUISITE	CH
COMM 103	Language and Communication	None	3
HIST 103	History of Qatar	None	3
LAWC 305	Governance	None	3
SOCI 102	Islamic and World Cultures	None	3
UNIV 101	University Success	None	3
UNIV 201	Leadership, Entrepreneurship, and Innovation	None	3
ENGL 114	English Composition I	None	3
ENGL 115	English Composition II	ENGL 114	3
STDE 201	Sustainable Development	None	3
Foreign Language	Foreign Language Requirement	None	3
COURSE NO.	MAJOR REQUIREMENTS (33 CREDIT HOURS)	PREREQUISITE	CH
ITGM 309	Computer Graphics	None	3
ITGM 301	Introduction to Game Design	None	3
ITGM 452	Advanced Computer Graphics	None	3
ITGM 310	Game Design Patterns	None	3
ITGM 401	Educational Games Development	None	3
ITGM 402	Networked Games	None	3
ITGM 404	3D Design and Modeling	None	3
ITGM 380	Game Artificial Intelligence	None	3
ITGM 222	Ethics in Computer Games	None	3
ITGM 430	Advanced Concepts in Gaming	None	3
PSYC 220	Cognitive Psychology	None	3

COURSE NO.	COLLEGE REQUIREMENTS (48 CREDIT HOURS)	PREREQUISITE	CH
ITCC 102	Discrete Mathematics	None	3
ITCC 204	Computer Programming	None	3
ITCC 105	Calculus	None	3
ITCC 101	Linear Algebra	ITCC 105	3
ITCC 250	Object Oriented Programming	ITCC 204	3
ITCC 201	Data Structures	ITCC 250	3
STAT 201	Probability and Statistics	ITCC 105	3
ITCC 104	Fundamentals of Information Technology	None	3
ITCC 103	Algorithms and Problem Solving	ITCC 201	3
ITCC 106	Ethics and Professional Responsibilities	None	3
ITCC 306	Database Systems	ITCC 250	3
ITCC 307	Software Engineering	ITCC 250	3
ITCS 303	Networks	ITCC 104	3
ITAI 201	Introduction to Artificial Intelligence	ITCC 204	3
ITCC 400	Practical Training	ITCC 307, and should pass at least 75 CH	3
ITCC 403	Graduation Project	ITCC 307, and should pass at least 81 CH	3
COURSE NO.	MAJOR ELECTIVE COURSES (9 CREDIT HOURS)	PREREQUISITE	CH
ITGM 305	Special Topics in Gaming	None	3
ITEC 305	IT Project Management and Entrepreneurship	None	3
ITEC 303	Data Analytics	ITAI 201	3
ITEC 351	Economics of Games	None	3
ITEC 352	Social Impact of Games	None	3
ITEC 355	Games and Privacy	None	3
ITEC 403	Mobile Application Development	ITCC 250	3

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**Program Plan**

Academic Year 1 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCC 105	Calculus	3	ITCC 250	Object Oriented Programming	3
ITCC 204	Computer Programming	3	ITCC 101	Linear Algebra	3
ITCC 102	Discrete Mathematics	3	ITCC 104	Fundamentals of Information Technology	3
HIST 103	History of Qatar	3	UNIV 101	University Success	3
ENGL 114	English Composition I	3	ENGL 115	English Composition II	3
Total Credit Hours = 15			Total Credit Hours = 15		

Academic Year 2 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCC 201	Data Structures	3	ITCC 103	Algorithms and Problem Solving	3
ITGM 309	Computer Graphics	3	ITCC 306	Database Systems	3
STAT 201	Probability and Statistics	3	ITAI 201	Introduction to Artificial Intelligence	3
ITCC 106	Ethics and Professional Responsibilities	3	UNIV 201	Leadership, Entrepreneurship, and Innovation	3
COMM 103	Language and Communication	3	STDE 201	Sustainable Development	3
Total Credit Hours = 15			Total Credit Hours = 15		

Academic Year 3 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCS 303	Networks	3	ITGM 401	Educational Games Development	3
ITCC 307	Software Engineering	3	ITGM 402	Networked Games	3
ITGM 301	Introduction to Game Design	3	ITGM 404	3D Design and Modeling	3
ITGM 452	Advanced Computer Graphics	3	Major Elec	Major Elective	3
ITGM 310	Game Design Patterns	3	Foreign Language	Foreign Language Requirement	3
Total Credit Hours = 15			Total Credit Hours = 15		

ITCC 400 Practical Training Total Credit Hours =3					
Academic Year 4 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCC 403	Graduation Project	3	ITGM 430	Advanced Concepts in Gaming	3
ITGM 380	Game Artificial Intelligence	3	PSYC 220	Cognitive Psychology	3
ITGM 222	Ethics in Computer Games	3	Major Elec	Major Elective	3
Major Elec	Major Elective	3	SOCI 102	Islamic and World Culture	3
LAWC 305	Governance	3			
Total Credit Hours = 15			Total Credit Hours = 12		